Tea & Web Bar Management

P0209302 DLong
P0208801 Johnson

Abstract

Now a day in China, more and more tea bar has owned web bar business as they deal their tea bar business. In that case, the tea bar manager has to use two different management systems to manage their business. They have to always change system anytime. So if a system that make two different systems in one and easy to use, it will be very wonderful.

My father is one of managers of tea bar. And he has his own web bar too. So that’s the key reason for us to develop a system that is a kind of management software. It’s useful for us and there is not more same kind system. Why we didn’t develop this? So we begin.

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Introduction

Main functions, include cash type function, dish function and so on. And inventory viewing, member management, manager function. And the system can prints invoice.

Smart Card sub-system is used in this system. And our Smart Card use ACR30. This kind of smart card is better than Magnetic card (like web card in china), Pyromagnetic card (like phonecard), belong to touch type. It has own CPU and memory in one card. So can record some information and deals some simple programs. In our Software, we use its functions about read/write.

Functional List and User manual:

1. Login

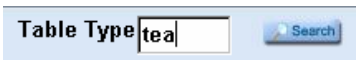
   You can use your own userId and password login. Only correct userId and password can login.

   And press “OK”,

2. Booking & Inquiry Subsystem.

   Make a reservation for seat and computer if customer want, and view the statement of seat and computer in not use by this subsystem.

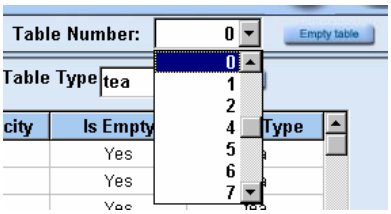
This is “Start” button, press this one to start or system.

   At first, select tea room or computer. 

   All tea room will show in the DBGrid.

Table Number	Capacity	Is Empty	Table Type
0	15	Yes	tea
1	15	Yes	tea
2	15	Yes	tea
3	15	No	tea
4	15	Yes	tea
5	10	Yes	tea
6	10	Yes	tea
7	10	Yes	tea

And press “Empty Table”, the empty table will show in the Combo Box.

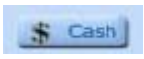


If you want go to drink tea, please press

to order what you want.

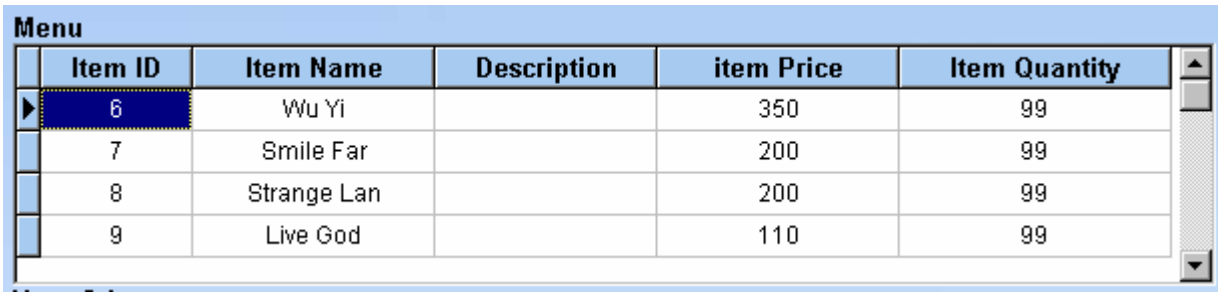
Else if you want play computer, please press

button.

Else if you already order and want to cashier, please press 

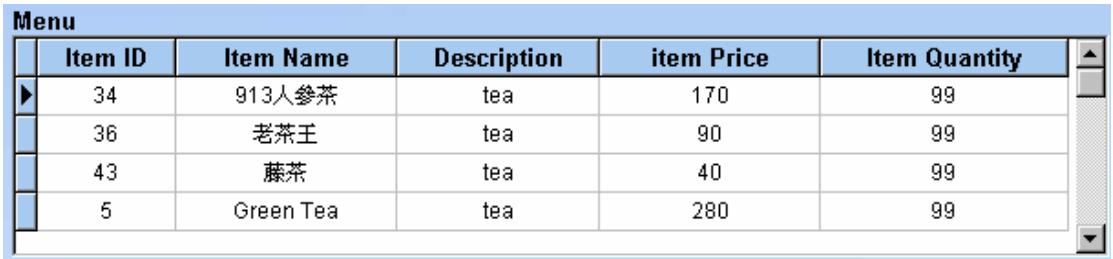
button.

3. Dish.
   There are a menu on DBGrid.



And you can search which type you want to find.

All of “tea” will show.



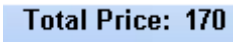
Enter the number what you want dish

Press

, the item will show on the "Your order" DBGrid.

And you can delete it.

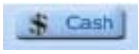
Warning!!!: Because Item ID is PK, Each Item is allowed to pick once. If pick a item more than once, it will error.

This is Total Price 

This is a price of one piece of item

When you dished item. Press

,set this table is busy. Another consumer can't use this table.

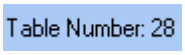
And you can 

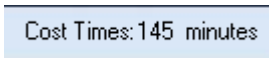
it soon, or

the form before this.

4. Web Bar

Same as Dish you must

this table. 

This is how many minutes you cost. 

For easy test. I set the Timer's Interval are "10000". It is too expensive in the real world.

When you press this

, it will calculate total price.

It will show on DBGrid.

And you can cash it or back to main form.

5. Cashier.

Calculate the payment of customers' expenditure.

Your must search which table you want at the first.

Press Search, the table”2” will show.

Item ID	Table Number	Item Name	Item Price	Quantity	Total Price
7	2	Smile Far	200	1	200
8	2	Strange Lan	200	2	600

And you can print the invoice for customer.

After you print the invoice, you must press

to clear the Dynamic database.

6. Print Invoice

Print a invoice for customer.

This invoice contain :

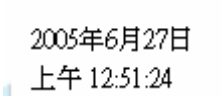
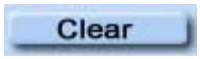
Time and Date. 

Table Number:

Your consume list.

Item ID	Item Name	Item Price	Item Quantity	Total Price
7	Smile Far	200	1	200
9	Live God	110	2	420
13	East Bea	180	1	600
17	Black Dra	150	1	750

And close this form.

It will back to Cashier part. And you will 

7. Human Resources Management.

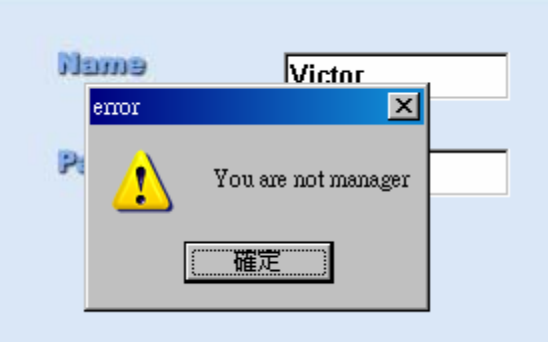
Can view the information of staff through this subsystem.

This is Member button

You were login at first.

If you aren't a Manager, you can't login it.

It will show



When you login in. You can do like that operate.

8. Inventory Management Subsystem.

   Through it, manager can know the inventory, like tea, computer hardware, some drinks, snacks and so on

   Press this button to enter this form.

   Same as Human Resources Management.

   This part also can do that operate.

9. Member Information Management.

   Use a SMART CARD system to create and mange the information of members. At the same time, the information will be save here.

10. Member’s Management (Smart Card).

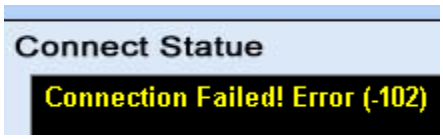
You can enter the Smart Card Interface by this button always:

After you enter, you can select operation to do what you want.

(1) **Connection**

Connect the Smart card reader after you select your port by a combo box.

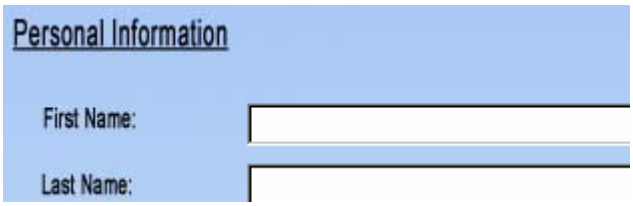
You can select any port if your smart card reader supported. And If you select wrong or not find smart card reader, it will display this:



And if success, it is:

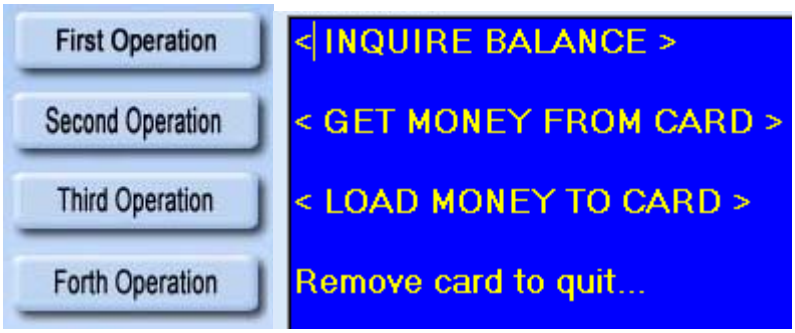
(2) **Creation & Remove**

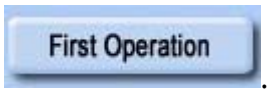
Through this, you can create or remove members. Fill information in to blank and care the password if it is 8 places.



(3) **Card Information**

You can know how much money in your card now.

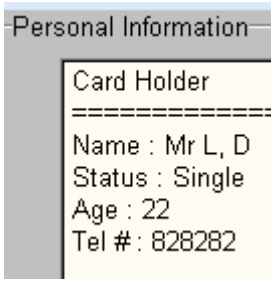


And the operations is one by one for those operation. For example, if you want to know your balance, you click the “First Operation” 

. Other things are same.

(4) **Personal Information**

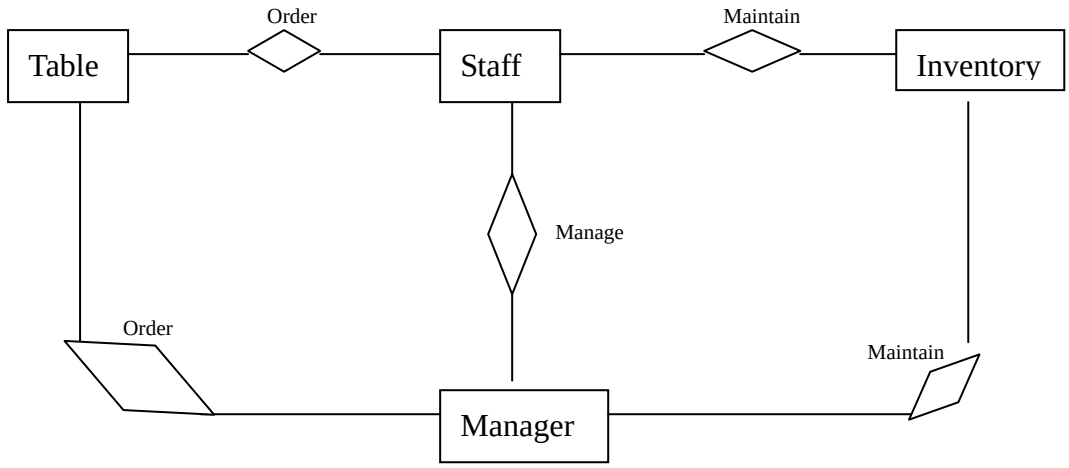
View personal Information like age, gender and so on those were filled when created this card.



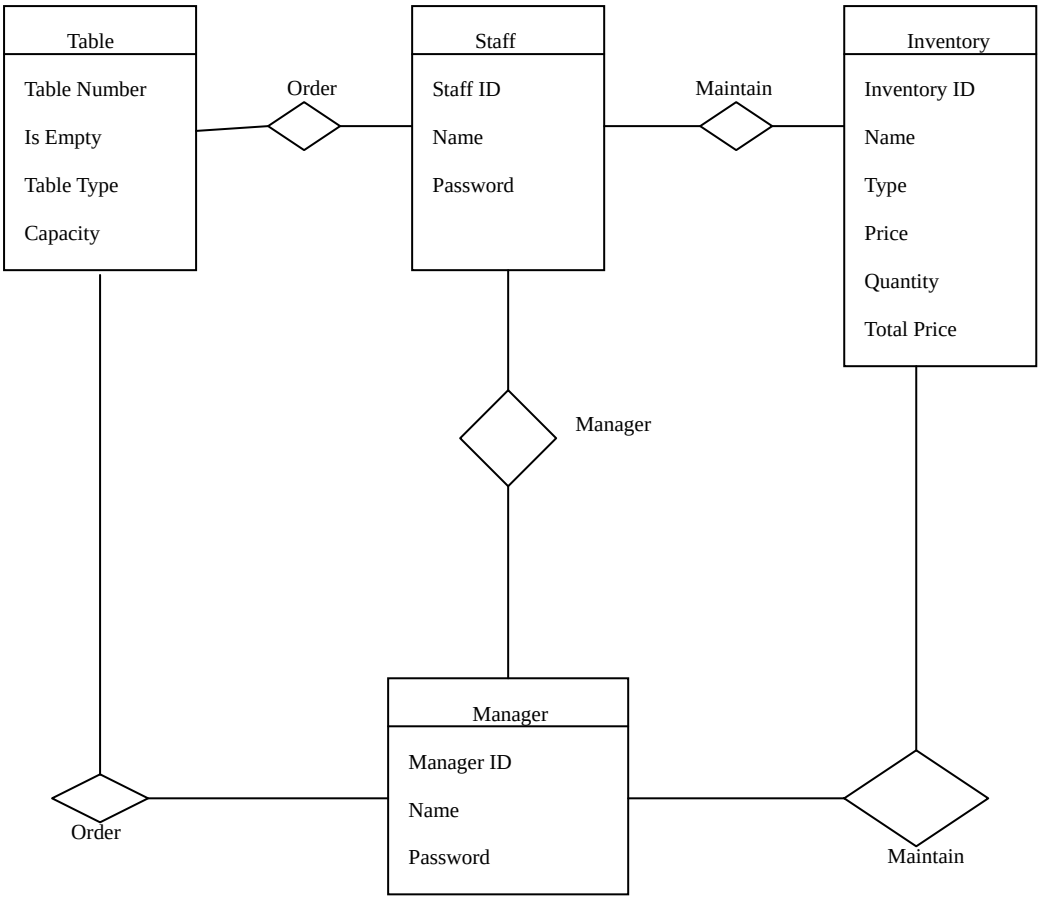
Non-Functional Requirement:

1. Easy to use.
2. Less Space.
3. Smart Card system in use.

Logical ER-diagram:



Physical ER-Diagram:



User Manuel

1. This system is built on OS - Win 2000 / XP and Delphi 7.0.
2. Please use Smart Card Reader ACR 30. Because we use it to develop this system.
3. Please attention and setup this system in your “e:” driver in your hard disk. Otherwise may be system can not find the data base.

Reference:

1. Delphi 數據庫實例
2. Delphi 数据库开发实例解析.
3. Database Systems A Practical Approach to Design, Implementation, and Management.

Job Divide:

Group Member:

P0208801 Johnson

P0208801 DLong

Johnson's Part (responds functional writing anout Delphi):

1. Login
2. MainForm
3. Managerlogin
4. Manager
5. Inventory
6. Member
7. Position
8. Dish
9. Web
10. Report
11. Rave Invoice

DLong's Part (responds Smart Card system and other things):

1. Main Functional design.
2. Poster and 2 times of Powerpoint.
3. All interface design, buttons and backgrounds making.
4. All smart card function:
    a. FrmVerify
    b. ACSPropAPI
    c FrmCardInf
    d FrmPerInf
    e FrmMain
    f FrmPerso

5 Report.